

Final Environmental Assessment

Construction and Operation of a Fire Training Facility

**Clear Air Force Station,
Denali Borough, Alaska**

Prepared for:



Prepared by:



April 29, 2010

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FINAL FINDING OF NO SIGNIFICANT IMPACT
FOR
CONSTRUCTION AND OPERATION OF A FIRE TRAINING FACILITY
AT CLEAR AIR FORCE STATION
DENALI BOROUGH, ALASKA

Description of Proposed Action: An Environmental Assessment (EA) has been developed in accordance with the requirements of the National Environmental Policy Act of 1969, the Council on Environmental Quality regulations, and implementing regulations set forth in 32 CFR §989 (*Environmental Impact Analysis Process*), as amended, to analyze a United States Air Force (USAF) proposal to construct and operate a commercial, pre-fabricated 608-square-foot Fire Training Facility (FTF) at the location of the existing FTF at Clear Air Force Station (AFS), Alaska.

The existing FTF was constructed in 1986, is not compliant with current standards, and has deteriorated due to use. The existing FTF is not compliant with National Fire Protection Association (NFPA) Standard 1001, primarily because its design cannot accommodate fire fighter training both at and above grade. The existing FTF is not compliant with NFPA Standard 1006, primarily because exterior high-angle and low-angle rescue training, interior search and rescue training, and rappelling operations cannot be conducted. Subsequently, the Clear Fire Department (FD) does not currently have access to a training facility that will ensure continued NFPA certification and a safe, effective training environment for fire fighters. Therefore, the Proposed Action is needed to address the lack of a NFPA-compliant training facility required for Clear FD training activities.

The Proposed Action includes the demolition of the current FTF, site preparation, and the construction and operation of a new FTF at the location of the current FTF. The proposed FTF would provide an on-site structure that is compliant with NFPA Standards 1001 and 1006, as required by Air Force Instruction 32-2001. The new facility would be a commercial, pre-fabricated 608-square foot FTF that would allow Clear FD personnel to complete required training activities including ground level and second level fire fighting, live fire drafting operations, exterior high-angle and low-angle rescue, interior search and rescue, and rappelling.

The proposed FTF would be constructed on a 38 x 20 foot concrete pad. It would be a steel structure with two burn rooms (first and second story), interior stairs to all stories, and an exterior three-story tower with parapet wall. Design features would include temperature sensors, ventilation, and a water-based artificial smoke generator and distribution system.

The Proposed Action also includes the installation of a below-grade 500-gallon concrete drafting pit near the FTF to allow the Clear FD to practice drafting (i.e., water uptake through hoses) operations during live fires. The proposed drafting pit would also allow the department to conduct required annual engine pump testing. It would be outfitted with a water connection, and would include a metal cover.

Once operational, the FTF would be utilized for fire training approximately twice a year, generally in the spring and autumn. Each fire training session would take approximately three days to complete. Only Class A fuels (i.e., newspaper, cardboard, and clean, unpainted pallets) would be used. No chemical propellants or accelerators would be utilized during training.

activities. Approximately 11-14 pallets would be used each of the three days. Approximately 250 to 300 gallons of water would be used during each of the training days. Rescue training would likely occur more frequently, but a schedule for these training exercises has not yet been developed.

Description of Alternatives Analyzed: In addition to the Proposed Action alternative, one other alternative (the No Action alternative) was carried forward for analysis in the EA. Under the No Action alternative the proposed FTF would not be constructed. Required fire fighter training would continue to be conducted within the inadequate, non-compliant existing FTF. This would present the Clear FD with training deficiencies, could impair the safe operation of fire fighting and rescue operations, and would not allow Clear FD to attain/maintain their required NFPA certification.

Summary of Findings: Based on the types of activities involved and the issues identified through internal discussion and public input, the analysis focused on the following:

- Air Resources,
- Water Resources, and
- Hazardous Materials/Waste.

A number of measures would be implemented to minimize the potential for impacts to these resources. To minimize impacts to Air Resources during demolition and construction activities, Best Management Practices (BMPs) would be implemented. To minimize impacts to both Air and Water Resources during training exercises, only clean pallets, paper, and cardboard would be burned. Additionally, a State of Alaska Wastewater Disposal Permit would be acquired as necessary through coordination with the Department of Environmental Conservation prior to the commencement of training activities. To minimize impacts to Hazardous Materials/Waste, all painted surfaces would be tested for the presence of lead based paint (LBP) in accordance with the Clear AFS comprehensive LBP Management Plan. If LBP were detected on the painted surfaces, trained and certified abatement personnel would remove the material, and the resultant waste would be removed, handled, and disposed of properly. Any plans, standards, or practices required by local, state, or federal law or USAF regulation would be observed in an effort to avoid or minimize impacts to the resources including BMPs commonly included in construction contracts for resource protection at Clear AFS. Therefore, the analysis in the EA concluded the following:

- There would be no significant impact to environmental justice, cultural resources, noise, safety and occupational health, geology and soils, infrastructure, visual resources, hazardous materials and waste management, soil resources, socioeconomics, or biological resources;
- There would be no significant impact to air resources;
- There would be no significant impact to water resources, including surface water and groundwater; and
- There would be no significant impact to hazardous materials/waste.

Finding of No Significant Impact: Based on information and analysis presented in the EA and review of public and agency comments submitted, I conclude that implementation of the Proposed Action alternative would not constitute an action that significantly affects the quality of the human environment due to the findings listed above and expanded upon in the EA. Accordingly, a finding of no significant impact is made for the Fire Training Facility project and an environmental impact statement under the National Environmental Policy Act is therefore not necessary.



Michael J. Sowa
Lt Col., USAF
Commander

BAE SYSTEMS

200 A Street Stop 500
Clear Alaska 99704-5366
Contract: FA2517-06-C-8001

REPORT TRANSMITTAL

TO:

21 CES/CEVS
Attn: Jim Buchanan
580 Goodfellow Street
Peterson AFB, Colorado
80914-2370

DATE: 4 May 2010**SUBJECT:**

Environmental Impact Analysis Process – FONSI for the Construction and Operation of a Fire Training Facility,
Clear Air Force Station, Denali Borough, Alaska

ATTACHED REPORT IS SUBMITTED IN ACCORDANCE WITH

CDRL ITEM 1012

REMARKS:

POC: Heidi Young

COPY TO:

BAE/CAQ

SIGNATURE:**TITLE**

Site Manager

OFFICE DESIGNATION:

CA

Final Environmental Assessment
For the Construction and Operation of
a Fire Training Facility

April 29, 2010

Prepared for:
21st Space Wing
Peterson AFB, Colorado
and
The Air Force Center for Engineering and the Environment

Prepared by:
North Wind, Inc.
535 North Pleasantburg, Suite 136
Greenville, SC 29607

ORGANIZATION OF THE ENVIRONMENTAL ASSESSMENT

This Environmental Assessment (EA) evaluates the potential environmental, socioeconomic, and cultural effects of the U.S. Air Force's proposed construction and operation of a Fire Training Facility at Clear Air Force Station, Alaska.

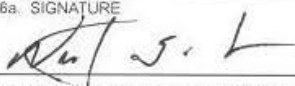
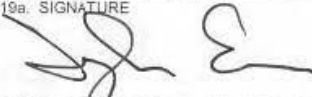
As required by the National Environmental Policy Act of 1969 (NEPA; 42 USC 4321 *et seq.*), the Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 CFR Part 1500-1508), and 32 CFR Part 989 (*Environmental Impact Analysis Process*, Final Rule), the potential effects of the Proposed Action are analyzed. This EA will facilitate the decision-making process regarding the Proposed Action and its considered alternatives, and is organized into the following four chapters:

- *Chapter 1 – Purpose, Need, and Scope:* This chapter describes the purpose of and need for the project.
- *Chapter 2 – Description of the Proposed Action and Alternatives:* This chapter provides background information for the project and describes the Proposed Action in detail. Also included in this chapter is a description of the alternatives that were considered for achieving the stated purpose, including alternatives that were eliminated from detailed study.
- *Chapter 3 – Affected Environment:* This chapter provides a description of the existing resources with the potential to be affected by the Proposed Action and the No Action alternatives.
- *Chapter 4 – Environmental Consequences:* This chapter describes the environmental effects of implementing the Proposed Action and the No Action alternatives. The analysis is organized by resource and considers direct, indirect, and cumulative effects. The effects of the No Action alternative provide a baseline for evaluation and comparison. Mitigations and actions included in the Proposed Action that may be taken to reduce impacts to resources are also discussed.

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REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS		Report Control Symbol RCS:
INSTRUCTIONS: Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).		
SECTION I - PROPONENT INFORMATION		
1. TO (Environmental Planning Function) Aleut Global Solutions/CENV	2. FROM (Proponent organization and functional address symbol) 13 SWS/MAF	2a. TELEPHONE NO. 585-6273
3. TITLE OF PROPOSED ACTION Removal of current Training facility and Install new Facility to include Concrete pad. Install new 500 Gal. Drafting Pit.		
4. PURPOSE AND NEED FOR ACTION (Identify decision to be made and need date) The new training facility and drafting pit would allow us to complete training requirements IAW AFI 32-2001 and NFPA 1001, 1002 series. Date to be completed by is 31 Aug 2008.		
5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOFAA) (Provide sufficient details for evaluation of the total action.) Remove existing facility and concrete pad and install new 38' x 20' concrete pad where the current facility sits and to install an in-ground 500 gallon drafting pit with lid and piping to recirculate the water back into the drafting pit.		
6. PROPONENT APPROVAL (Name and Grade) West Brinkley, YN-02	6a. SIGNATURE 	6b. DATE 20080207
SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. (Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U = unknown effect)		
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE (Noise, accident potential, encroachment, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
8. AIR QUALITY (Emissions, attainment status, state implementation plan, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. WATER RESOURCES (Quality, quantity, source, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. SAFETY AND OCCUPATIONAL HEALTH (Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard, etc.) Assuming towers will not be exposed to chemicals.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. HAZARDOUS MATERIALS/WASTE (Use/storage/generation, solid waste, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12. BIOLOGICAL RESOURCES (Wetlands/floodplains, threatened or endangered species, etc.) No wetlands present in described location.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13. CULTURAL RESOURCES (Native American burial sites, archaeological, historical, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14. GEOLOGY AND SOILS (Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15. SOCIOECONOMIC (Employment/population projections, school and local fiscal impacts, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16. OTHER (Potential impacts not addressed above.) Is a training facility not part of the Fire Department Complex Project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION		
17. <input type="checkbox"/> PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # _____; OR <input checked="" type="checkbox"/> PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX. FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED		
18. REMARKS 7. Specifics of training facility are not known, such as the size of the complex and training activities, including the frequency. 11. Materials used and wastes produced during training activities are not known. 14. There is an IIRP site adjacent to the current building. Post closure requirements of the IIRP should be evaluated. 16. Requirement is not explained in section I.4, and alternatives are not discussed in I.5.		
19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION (Name and Grade) Tyler M. Evans, Lt. Col., 13SWS/CC	19a. SIGNATURE 	19b. DATE 25 FEB 08

AF IMT 813, 19990901, V1

THIS FORM CONSOLIDATES AF FORMS 813 AND 814.
PREVIOUS EDITIONS OF BOTH FORMS ARE OBSOLETE.

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ACRONYMS

°F	Degrees Fahrenheit
AAAQS	Alaska Ambient Air Quality Standards
ACM	asbestos-containing material
ADEC	Alaska Department of Environmental Conservation
ADNR	Alaska Department of Natural Resources
AFB	Air Force Base
AFI	Air Force Instruction
AFS	Air Force Station
AQCR	Air Quality Control Region
BMP	Best Management Practice
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CAA	Clean Air Act
CWA	Clean Water Act
DoD	U.S. Department of Defense
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
FD	Fire Department
FONSI	Finding of No Significant Impact
FTF	Fire Training Facility
IICEP	Intergovernmental and Interagency Coordination for Environmental Planning
IRP	Installation Restoration Program
LBP	lead-based paint
mph	miles per hour
MSL	mean sea level
NAAQS	National Ambient Air Quality Standard

NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
OSHA	Occupational Safety and Health Administration
PPE	Personal Protective Equipment
SHPO	State Historic Preservation Office
SWS	Space Warning Squadron
tpy	tons per year
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VOC	Volatile Organic Compound
XRF	X-ray fluorescence

Environmental Assessment

For the Construction and Operation of a Fire Training Facility

1. PURPOSE, NEED, AND SCOPE

1.1 Introduction

This Environmental Assessment (EA) is an evaluation of the proposal to demolish the existing Fire Training Facility (FTF) and to construct and operate a new FTF at Clear Air Force Station (AFS), Denali Borough, Alaska. The new FTF would enhance fire fighter training and provide a facility that is compliant with applicable National Fire Protection Association (NFPA) and Air Force standards.

Clear AFS is located in east central Alaska approximately 80 miles southwest of Fairbanks in the Tanana Valley (see Figure 1). It encompasses 11,438 acres, most of which is undeveloped. The developed portion of Clear AFS consists of approximately 350 acres and is divided into five main areas:

- The Composite Area, where most administrative, recreational, and living quarters are located;
- The Camp Area, where civil engineering, maintenance shops, and security police offices are located;
- The Power Plant, which supplies electricity to the Station;
- The Solid State Phased Array Radar System Site, which is used to detect missile launches as well as to track moving objects through space; and
- The former Technical Site facilities, which are scheduled for demolition.

Clear AFS is bordered to the east by the George Parks Highway (Alaska State Highway 3), to the north by the community of Anderson, and to the west by the Nenana River. The Alaska Range is located to the south. Clear AFS can be accessed from the George Parks Highway, which is the highway connecting Anchorage and Fairbanks.

Clear AFS is the home of the 13th Space Warning Squadron (SWS) and the 213th SWS (Air National Guard), which is one of several geographically separated units of the 21st Space Wing, Peterson Air Force Base (AFB). The 13th SWS generates early missile launch warning data and provides total coverage of the North American continent in the event of ground-based or sea-launched ballistic missile attack. They also provide space surveillance data for more than 9,500 manmade objects in orbit around the world. Clear AFS staff includes approximately 14 officers, 99 enlisted military members, 3 Canadian employees, 50 Department of Defense (DoD) civilian employees, and 210 contract employees.

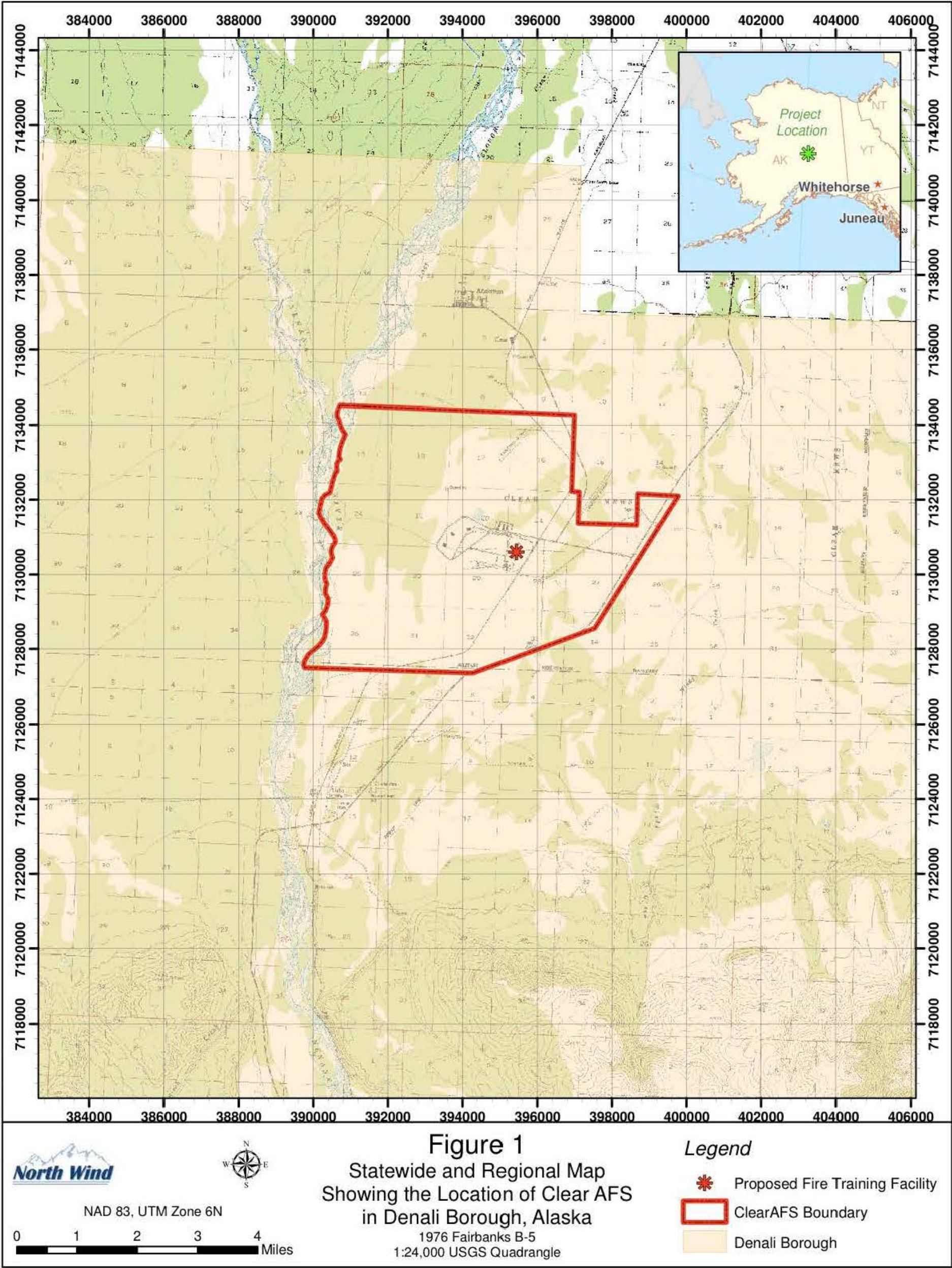


Figure 1. Statewide and Regional Map Showing the Location of the Clear Air Force Station in Denali Borough, Alaska.

The Clear AFS Fire Department (FD) is a Federal fire department staffed by 20 full-time DoD civilian fire fighters. The Clear FD utilizes three fire engines and numerous support vehicles. The Clear FD protects approximately 800 people over an area of 25-square miles, including a Mutual Aid Agreement with the Anderson, Alaska Volunteer Fire and Emergency Medical Services Department. The Clear AFS FD provides the following services:

- Firefighting,
- Hazardous Material Response,
- Basic Life Support Emergency Medical Service,
- Vehicle Rescue (Extrication), and
- Search and Rescue.

The proposed FTF would be constructed on a new 325-square foot concrete pad. It would include two burn areas (one on the ground floor and one on the second floor), and a three-story tower with parapet wall and anchor points on the roof to conduct high-angle and low-angle rescue training, as well as rappelling operations. The tower interior would allow for greater flexibility when performing search and rescue training. A proposed 500-gallon drafting pit would allow the fire fighters to practice drafting operations during live fires and to conduct required annual pump testing of the fire engines. The proposed FTF would be located on the site of the existing FTF, in the northeast portion of the Camp Area (see Figures 2-4).



Figure 2. Existing Fire Training Facility, facing southwest.



Figure 3. Existing Fire Training Facility, facing north.

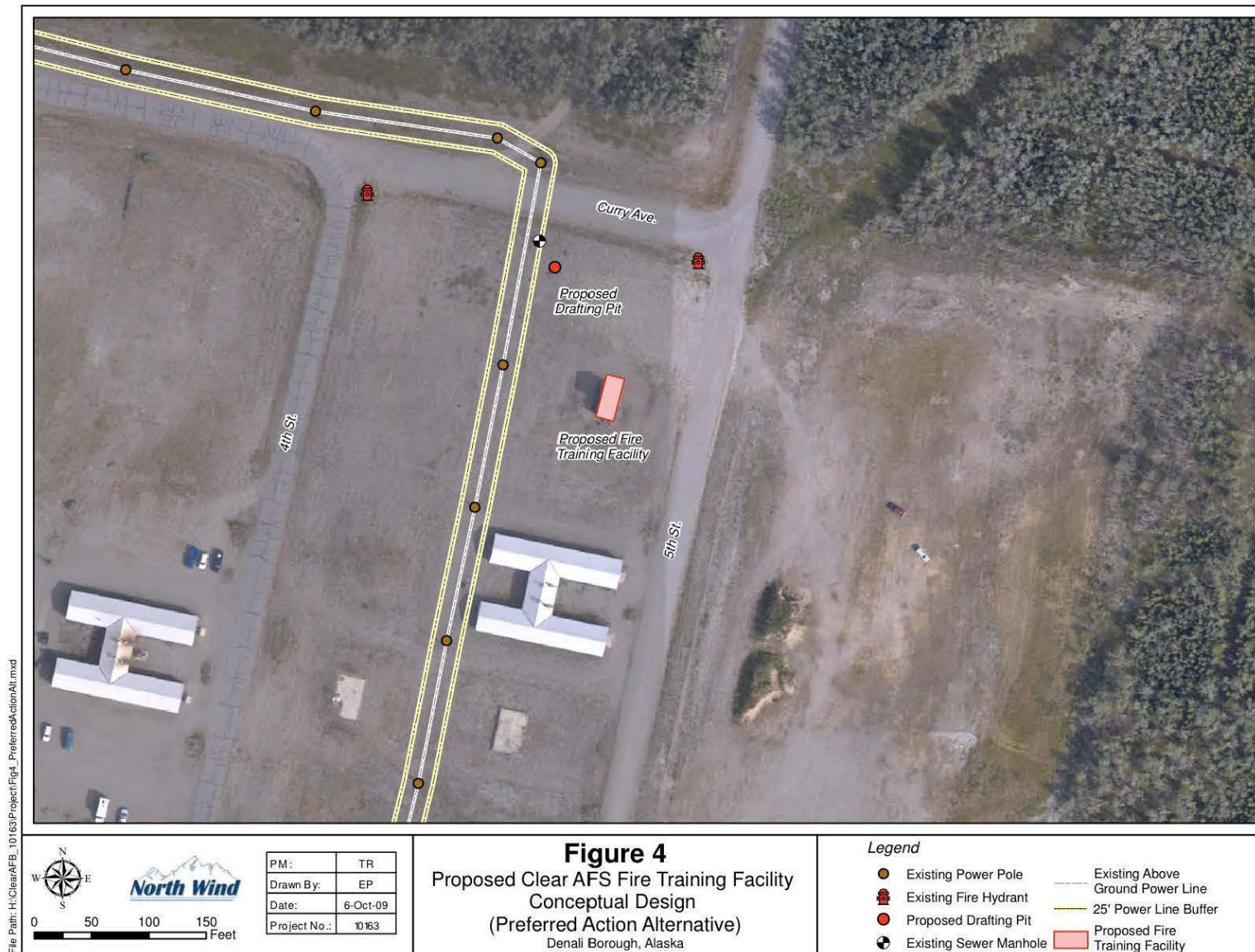


Figure 4. Proposed Clear Air Force Station Fire Training Facility Conceptual Design.

1.2 Purpose and Need

The purpose of the Proposed Action is to improve fire fighter training by providing the Clear FD access to a training facility that is in compliance with NFPA Standards 1001, *Fire Fighter Professional Qualifications* (NFPA 1001), and 1006, *Technical Rescuer Professional Qualifications* (NFPA 1006). Air Force Instruction (AFI) 32-2001, *Fire Emergency Services Program* (AFI 32-2001), requires implementation of these standards within a one-year period. Therefore, implementation was required beginning 9 September 2009.

The existing FTF was constructed in 1986, is not compliant with current standards, and has deteriorated due to use. The existing FTF is not compliant with NFPA Standard 1001, primarily because its design cannot accommodate fire fighter training both at and above grade. The existing FTF is not compliant with NFPA Standard 1006, primarily because exterior high-angle and low-angle rescue training, interior search and rescue training, and rappelling operations cannot be conducted. Subsequently, the Clear FD does not currently have access to a training facility that will ensure continued NFPA certification and a safe, effective training environment for fire fighters. Therefore, the Proposed Action is needed to address the lack of a NFPA-compliant training facility required for Clear FD training activities.

In addition to the non-compliance issues described above, the existing facility has deteriorated due to years of use. The paginite wall panels are cracked, and much of the supporting materials behind them have rotted. The concrete floor in the burn room is spalled (i.e., it has deteriorated to the point where chunks of the concrete separate from the concrete structure), and portions of the roof have burned through. The FD did not conduct training exercises during the autumn of 2009 because they determined that the existing facility was in such poor condition that the fire fighters could not safely utilize it for training activities.

The proposed FTF would provide a state of the art training facility that is compliant with current NFPA standards and would address the issue of deterioration of the existing facility.

1.3 Scope of the Analysis

1.3.1 Environmental Impact Analysis Process

The Air Force implementing regulations for National Environmental Policy Act (NEPA) are found at 32 CFR Part 989, Environmental Impact Analysis Process (EIAP). The EIAP requires the Air Force to address environmental impacts through consideration and documentation of the environmental effects of a proposed action, as well as reasonable alternatives to the proposed action and the No Action Alternative. Every EA must lead to either a Finding of No Significant Impact (FONSI), a decision to prepare an Environmental Impact Statement (EIS), or selection of the No Action alternative. The EIAP ensures compliance with the NEPA and CEQ regulations.

1.3.2 Regulatory Compliance

This EA has been prepared to comply with NEPA. It addresses the Proposed Action alternative's compliance with other applicable environmental laws and regulations including the Historic Site Act of 1935; Clean Air Act of 1970 (CAA); Endangered Species Act of 1973 (ESA); Clean Water Act of 1977 (CWA); and the National Historic Preservation Act of 1979 (NHPA). The Air Force (or construction contractor for the project) would acquire any permits and licenses required for the proposed demolition of the existing FTF and construction and operation of the new FTF. No permits beyond those already in place at Clear AFS would be required for implementation of the No Action alternative.

1.4 Public and Agency Involvement

The Air Force invites public participation in their Federal decision-making through the NEPA process. Consideration of the views and information of all interested persons promotes open communication and enables better decision-making. Agencies, organizations, and members of the public having a potential interest in the Proposed Action, including minority, low-income, and disadvantaged persons and Native American Tribes, are invited to participate in the decision-making process. Those agencies – and other vested interest groups and private individuals – were given an opportunity to comment on the selection criteria, scope, and resulting analysis in the EA during the public comment period. Notification of the availability of the EA for the 30-day public comment period was published in the Fairbanks Daily News-Miner. No comments were received from the public. In addition to the agency coordination described in Section 1.4.1, regulatory agencies were provided access to the EA via a website during the 30-day public comment period.

1.4.1 Agency Coordination

Intergovernmental and Interagency Coordination for Environmental Planning (IICEP) is a federally mandated process for informing and coordinating with Tribal and other governmental agencies regarding a Federal Proposed Action. CEQ regulations require intergovernmental notifications prior to making any detailed statement of environmental impacts. AFI 32-7060, *Interagency and Intergovernmental Coordination for Environmental Planning*, is the Air Force implementing guidance for agency coordination. Through the IICEP (i.e., scoping) process, the Air Force notifies relevant Federal, State, and local agencies and allows them sufficient time to make known their environmental concerns specific to a Proposed Action. Comments and concerns submitted by these agencies during the IICEP process are subsequently incorporated into the analysis of potential environmental impacts conducted as part of this EA. This coordination fulfills requirements under Executive Order (EO) 12372 (superseded by EO 12416, and subsequently supplemented by EO 13132), which requires Federal agencies to cooperate with and consider State and local views in implementing a Federal proposal. It also constitutes the IICEP process for this EA. Agencies with whom the Air Force has consulted as part of this EA include:

- Nenana Native Council,
- U.S. Fish and Wildlife Service (USFWS), Region 7,
- U.S. Army Corps of Engineers (USACE), Alaska Division,
- U.S. Environmental Protection Agency (USEPA), Region 10,
- U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS),
- State Historic Preservation Office (SHPO),
- Alaska Department of Natural Resources (ADNR) – Division of Mining, Land and Water,
- Alaska Soil and Water Conservation Board,
- Alaska Department of Environmental Conservation (ADEC),
- Alaska Association of Conservation Districts, and

- Alaska Department of Fish and Game.

Copies of sent and received correspondence are provided in Appendix A. Responses have been received from the following agencies either identifying potential environmental concerns or issues, or stating that they did not identify any such issues associated with the Air Force's Proposed Action:

- The Nenana Native Council responded on 12 January 2010. They stated that they have no concerns regarding the proposed project.
- The USFWS responded on 4 January 2010 that no federally listed species or wetlands occur in the project area. They further noted that impacts to fish, wildlife, and habitat would be minimal, since the project would be located on a previously disturbed site with existing vehicle and pedestrian traffic. They did express concern about potential off-site contamination from ash-laden runoff from the proposed activities, and recommended implementation of some means of recovering and properly disposing of ash and other potential contaminants.
- The ADEC Industrial Wastewater Authorization Program responded on 22 December 2009 and 8 January 2010. The initial response included a request for additional information so that they could determine permit requirements for discharge of wastewater from the proposed training activities. The second response included an ADEC Application for Wastewater Disposal.
- The Fairbanks Soil and Water Conservation District responded on 25 January 2010. They stated that they have no environmental concerns regarding the proposed project.

1.5 Environmental Issues

1.5.1 Relevant Issues Analyzed in Detail

Through the NEPA process relevant environmental issues were identified. This list of issues was derived from the potential for impacts based on an understanding of local conditions and the nature of the proposed work, as well as agency input resulting from the IICEP process. They include:

- Air Resources,
- Water Resources, and
- Hazardous Materials/Waste.

1.5.2 Issues Eliminated from Detailed Analysis

Based on correspondence provided from the contacted regulatory agencies during the IICEP/scoping process (Appendix A), previous studies conducted at Clear AFS, initial consideration on Air Force Form 813, *Request for Environmental Impact Analysis* (Appendix B), and additional analysis conducted by the interdisciplinary team, the following environmental areas are summarized in Appendix C and are not considered further in this EA:

- Environmental Justice,
- Cultural Resources,
- Noise,
- Safety and Occupational Health,
- Geology and Soils,
- Infrastructure,
- Visual Resources,
- Socioeconomics, and
- Biological Resources.

This is in full compliance with CEQ regulations, which state that NEPA documents should be “analytic rather than encyclopedic” (40 CFR Part 1502.2a) and that scoping should be used to “identify and eliminate from detailed study the issues, which are not significant or which have been covered by prior environmental review (Sec. 1506.3), narrowing the discussion of these issues in the statement [EA] to a brief presentation of why they will not have a significant effect on the human environment or providing a reference to their coverage elsewhere” (40 CFR Part 1501.7(a)(3)).

2. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

Clear AFS proposes to construct and operate a commercial, pre-fabricated 608-square-foot FTF at the location of the existing FTF. The proposed FTF would provide an on-site structure that is compliant with NFPA Standards 1001 and 1006, as required by AFI 32-2001.

2.1 Alternatives Development

The NEPA, CEQ regulations, and 32 Code of Federal Regulations (CFR) 989, *Environmental Impact Analysis Process*, require a range of reasonable alternatives to the Proposed Action be rigorously explored and objectively evaluated. Alternatives that are eliminated from detailed analysis must also be identified along with a brief discussion of the reasons for their elimination. For purposes of this analysis, an alternative was considered “reasonable” only if it would enable Clear AFS to accomplish the primary mission of providing a site suitable to conduct required fire training activities. “Unreasonable” alternatives would not enable Clear AFS to meet the purpose of and need for the Proposed Action.

2.2 Screening Criteria

As part of early project planning, the Clear AFS FD staff identified five screening (evaluation) criteria to guide the initial site review, evaluation, and selection process for the proposed FTF. Clear AFS developed these criteria based on the regulatory, physical, operational, and location requirements of the Proposed Action. The first three criteria are required attributes necessary to achieve the purpose of and need for the Proposed Action. Satisfaction of these criteria, plus at least one of the other two criteria, would provide a location and facility best suited to meet the purpose of and need for the Proposed Action. The Clear AFS screening criteria include (in priority order from most to least important):

1. **NFPA and Air Force Compliance:** The training facility must allow the Clear FD to comply with NFPA Standards 1001 and 1006. AFI 32-2001 requires implementation of these standards (REQUIRED CRITERION).
2. **Access/Location:** The training facility should be easily accessible to Clear AFS to facilitate mobilization of fire fighters for training events. It should be located near enough to Clear AFS that fire fighters can train with the same equipment that they would use in an actual fire or rescue situation (REQUIRED CRITERION).
3. **Infrastructure:** The site must be proximate to utilities (electricity and water) that are required for the training exercises (REQUIRED CRITERION).
4. **Environmental:** The site should contain few or no existing known environmental constraints, notably cultural and natural resources, and/or hazardous waste sites.
5. **Geotechnical/Ability to be Developed:** The site should be suitable for development from a geologic, geotechnical, and topographic perspective. This would minimize earth disturbance and/or construction costs to emplace the new FTF.

2.2.1 Application of Screening Criteria

Clear AFS screened all potential available alternatives and applied the above screening criteria. Through this process, the following alternatives were considered:

- Renovation of existing FTF at Clear AFS;

- Construction and operation of new FTF on alternate location at Clear AFS;
- Use of existing off-site FTF (i.e., Fort Wainwright, Eielson AFB, Fairbanks FD); and
- Construction and operation of new FTF at site of existing facility (Proposed Action).

Table 1 identifies the extent to which each of these alternative locations meets the established screening criteria; the subsequent sections provide additional detail. Through this analysis, only one site, the Proposed Action site, met all of the required screening criteria and all of the other screening criteria. Discussion of each of these alternatives follows below in Sections 2.3 and 2.4, and includes a description of the suitability of each site relative to the screening criteria.

Table 1. Evaluation of initial alternatives against established screening criteria.

Screening Criteria*	Renovation of Existing FTF	Construct New FTF on Alternate Location at Clear AFS	Use of Existing Off-site FTF (i.e., Fort Wainwright, Eielson AFB, Fairbanks FD)	Construct New FTF at site of Existing Facility (Proposed Action)
NFPA and Air Force Compliance	-	X	X	X
Access/ Location	X	X	-	X
Infrastructure	X	-	X	X
Environmental	-	-	X	X
Geotechnical/ Ability to be Developed	-	-	N/A	X
Viable Alternative?	N	N	N	Y
Key: *First three criteria are required to meet project purpose and need; otherwise, alternative is not considered viable. X = Alternative meets criterion - = Alternative does not meet criterion N/A = not applicable to this alternative Y = Site is a viable alternative based on initial screening N = Site is not a viable alternative based on initial screening				

2.3 Evaluated Alternatives

2.3.1 Proposed Action

Based on the above analysis, Clear AFS's Proposed Action is to construct and operate a new FTF at the location of the existing FTF. The proposed FTF would provide an on-site structure that is compliant with NFPA Standards 1001 and 1006, as required by AFI 32-2001. The new facility would be a commercial, pre-fabricated 608-square foot FTF that would allow Clear FD personnel to complete required training activities including:

- Ground level and second level fire fighting,
- Live fire drafting operations,
- Exterior high-angle and low-angle rescue,
- Interior search and rescue, and
- Rappelling.

The proposed FTF would be constructed on a 38 x 20 foot concrete pad at the location of the existing FTF (Figure 4). It would be a steel structure with two burn rooms (first and second story), interior stairs to all stories, and an exterior three-story tower with parapet wall. Design features would include temperature sensors, ventilation, and a water-based artificial smoke generator and distribution system.

The Proposed Action also includes the installation of a below-grade 500-gallon concrete drafting pit near the FTF to allow the Clear FD to practice drafting (i.e., water uptake through hoses) operations during live fires. The proposed drafting pit would also allow the Clear FD to conduct required annual engine pump testing. It would be outfitted with a water connection, and would include a metal cover.

Activities associated with the Proposed Action would include demolition and removal of the existing fire training facility and the spalled concrete pad, grading and gravelling the site, and extending electricity to the FTF.

Once operational, the FTF would be utilized for fire training approximately twice a year, generally in the spring and autumn. Each fire training session would take approximately three days to complete. Only Class A fuels (i.e., newspaper, cardboard, and clean, unpainted pallets) would be used. No chemical propellants or accelerators would be utilized during training activities. Approximately 11-14 pallets would be used each of the three days. Approximately 250 to 300 gallons of water would be used during each of the training days. Rescue training would likely occur more frequently, but a schedule for these training exercises has not yet been developed.

2.3.2 No Action Alternative

Under the No Action alternative, the proposed FTF would not be constructed. Required fire fighter training would continue to be conducted within the inadequate, non-compliant existing FTF. This would present the Clear FD with training deficiencies, could impair the safe operation of fire fighting and rescue operations, and would not allow Clear FD to attain/maintain their required NFPA certification.

While the No Action alternative would not satisfy the purpose of or need for action, this alternative was retained to provide a comparative baseline against which to analyze the effects of the Proposed Action, as required under Federal law.

2.4 Alternatives Eliminated From Further Consideration

Based on the analysis shown in Table 1, Clear AFS eliminated other initially considered alternatives through the screening process. Each of these sites or options failed to meet all of the three required screening criteria, as well as other screening criteria. The following provides a brief discussion of the Air Force's rationale for eliminating each of these alternatives.

2.4.1 Renovation of Existing Fire Training Facility

Clear AFS determined that the existing FTF had deteriorated beyond the point at which it could be renovated to comply with applicable standards. The paginite panels in the burn room have cracked, and most of the wooden support structures behind them have burned. The concrete pad is spalled, and would need to be replaced. The roof of the burn room has burned through in some areas, and would also require replacement. Additionally, the building is not configured to allow for second story fire training, interior search and rescue, or exterior high- and low-angle rescue. Besides being practically infeasible, this alternative would be a cost-prohibitive option for the Air Force. Consequently, this alternative was not evaluated as a feasible alternative and is not discussed further in this EA.

2.4.2 Construct New Fire Training Facility on Alternate Location at Clear Air Force Station

Clear AFS attempted to identify alternate sites within the developed portion of the Station that would be suitable for construction of a new FTF. No parcels were identified that would meet all of the criteria in Table 1 (particularly criteria 3 and 4). Any alternate site would require much more ground disturbance than the site of the existing FTF. As such, this alternative was not evaluated as a feasible alternative and is not discussed further in this EA.

2.4.3 Use of Existing Off-site Fire Training Facility

Clear AFS considered the possibility of using an existing, off-site FTF (i.e., Fort Wainwright, Eielson AFB, Fairbanks FD) to conduct training activities. There are three FTF's in the general vicinity of Clear AFS (Figure 5). While this alternative would enable the Clear FD to maintain NFPA and Air Force compliance, there are severe logistical problems associated with it. This alternative would not allow fire fighters to train using the same equipment that they would use to fight actual fires. They would use their individually issued Personal Protective Equipment (PPE) (i.e., coats, hats, boots, respirators, etc.), but trucks, hoses, and other large equipment would need to be supplied by the host fire department (so as not to leave Clear AFS with compromised fire protection during training activities). Additionally, this alternative would likely prove difficult in terms of logistics and scheduling, including transporting fire fighters to the remote facility (a minimum of 80 miles one way) and coordinating use of the facility with the host.

Because of the additional time required for training at an off-site facility, fire fighters would be required to use personal leave days to complete their training. They would also be far removed from Clear AFS and would not be able to effectively respond to an emergency there. This alternative could be implemented as a stopgap, emergency procedure, but it does not provide a long-term solution to the purpose and need of the Proposed Action. As such, this alternative was not evaluated as a feasible alternative and is not discussed further in this EA.

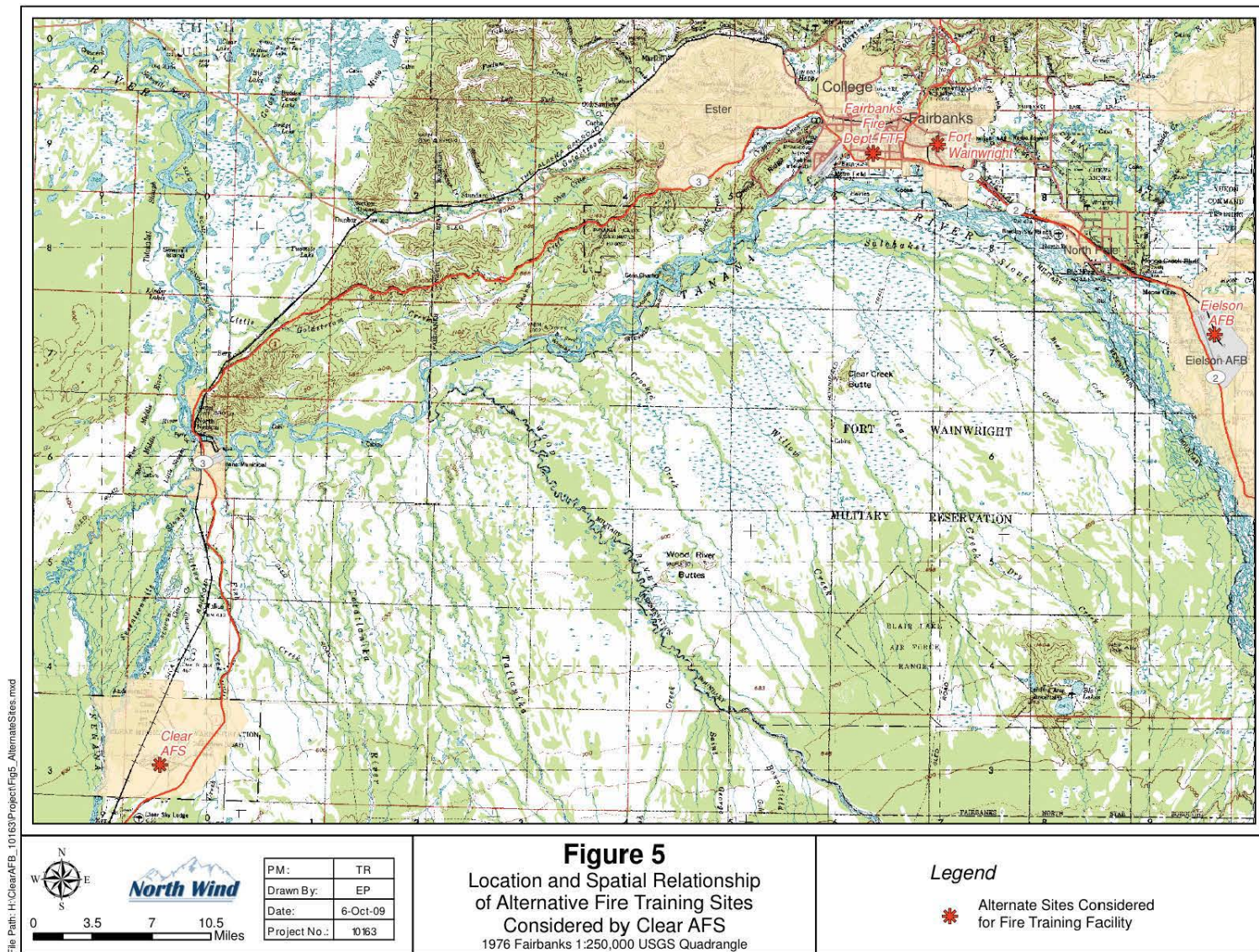


Figure 5. Location and Spatial Relationship of Alternative Fire Training Sites Considered by Clear Air Force Station.

3. AFFECTED ENVIRONMENT

3.1 Introduction

This section describes existing environmental and socioeconomic conditions at and surrounding the Proposed Action site located in Clear AFS, Denali Borough, Alaska, with emphasis on those resources potentially impacted by the Proposed Action. This section provides information that serves as a baseline from which to identify and evaluate any individual or cumulative environmental and socioeconomic changes likely to result from the implementation of the Proposed Action and the No Action alternatives. In compliance with NEPA, CEQ guidelines, and 32 CFR Part 989, the description of the affected environment focuses on those resources and conditions potentially subject to impacts. Due in part to the remote location of Clear AFS and the minor overall nature of the Proposed Action, impacts to a number of resources would be very slight, and are therefore not discussed in this section. Resources not discussed here are briefly addressed in Appendix C.

3.1.1 Geographic Setting and Location

Clear AFS is located in the Denali Borough, an unincorporated borough, in central Alaska, near the community of Anderson. The installation is approximately 78 miles southwest of Fairbanks and approximately 50 miles north of the entrance to Denali National Park. The main entrance to the installation is two miles west of the George Parks, Alaska State Highway 3 (Fairbanks-Anchorage) commonly referred to as Parks Highway. This is the only paved and maintained vehicular access to the installation.

The installation is approximately 156 miles south of the Arctic Circle at an average elevation of 595 feet above mean sea level (MSL). Located just south of the site is the Alaskan Range, a stretch of rugged peaks and glaciers including the highest point on the continent, Mount McKinley rising to an elevation of 20,320 feet.

Clear AFS consists of 11,438 acres of land, approximately 350 acres of which are currently developed. The remainder of the site is heavily forested primarily with black spruce, white spruce, aspen and birch trees. The site is about 10 miles from the base of the Alaskan Range on a broad glacial fluvial outwash plain.

The western border traces the bank of the Nenana River, which is a shallow drainage basin for the borough with a braided channel making it unsuitable for river transportation. However, riverboats have been known to travel as far as Anderson. Half of the eastern border parallels Parks Highway while the northern half steps back to accommodate the Clear Public Airport and a portion of Anderson Road, the only access to the town of Anderson. The northern and southern boundaries are heavily wooded and lie adjacent to very sparsely populated rural areas. A portion of the eastern edge of the station is traversed by the Alaskan Railroad, which makes regular coal deliveries to the installation.

The installation sits adjacent to the town of Anderson, Alaska, which was incorporated in 1962. Access to the city is via a 6-mile long, dead-end highway spur from the main entry road to Clear AFS, through a portion of the installation, then northwest to the town, which also resides along the bank of the Nenana River. Anderson's population is roughly 370 without accounting for civilian personnel that reside on the installation. The city presently offers little in the way of commercial support services, available housing, or other community related services.

The State-owned Clear Public Airport is located approximately one mile from the main entry road to Clear AFS along the highway spur to Anderson. It is maintained by a private contractor through an

agreement with the State of Alaska. The airfield operates an unattended 100-foot wide by 4,000-foot long, lighted, asphalt runway under visual flight rules.

3.2 Air Resources

This section describes the existing air quality, pertinent standards, and the climatic and meteorological conditions (e.g., precipitation, wind direction and speed, and atmospheric stability) that influence the quality of the air.

3.2.1 Climate

Clear AFS has a subarctic continental climate characterized by long cold winters, short mild summers, and noticeable changes in the daily weather pattern throughout the year. Temperature averages in interior Alaska range from approximately 60 degrees Fahrenheit (°F) in July to approximately -12°F in January. Temperature extremes can vary from a high of almost 100°F in the summer to -60°F in the winter. Mean annual precipitation is approximately 13 inches, with the majority occurring in the July through September timeframe. Snowfall averages about 45 inches per year, primarily from October through March. Wind information recorded at Clear AFS indicates a prevailing wind from the west to southwest, with a secondary prevalence from the east-northeast. Wind speeds average about 4 miles per hour (mph) in December and 7 mph in July (U.S. Air Force 2005). These directions approximate the orientation of the Nenana River Valley and demonstrate the funneling effect of the local mountain topography.

3.2.2 Sensitive Receptors

Sensitive populations are more susceptible to the effects of air pollution than the population at large. Sensitive receptors include health care facilities, retirement homes, schools, playgrounds, and child care centers. There are no health care facilities, retirement homes, schools, playgrounds, or child care centers on Clear AFS. The closest sensitive receptors are located in Anderson, approximately 4 miles to the north of Clear AFS.

3.2.3 Air Quality

Areas are designated by the USEPA as “attainment,” “non-attainment,” “maintenance,” or “unclassified” with respect to the National Ambient Air Quality Standards (NAAQS). Regions in compliance with the standards are designated as “attainment.” In areas where the applicable NAAQS are not being met, a “non-attainment” status may be designated. Areas that previously have been classified as “non-attainment” but are now in compliance may be redesignated “maintenance” status if the state completes an air quality maintenance plan and successfully demonstrates that the plan is effective in producing the necessary emission reductions and air quality improvements. Areas for which no monitoring data is available may be designated as “unclassified,” and are by default considered to be in attainment of the NAAQS.

The ADEC has adopted standards similar to the NAAQS (i.e., Alaska Ambient Air Quality Standards [AAAQS] 18 AAC 50.010), and includes reduced sulfur compounds and ammonia.

The ambient air quality in an area can be characterized in terms of whether or not it complies with the NAAQS. The CAA, as amended requires the USEPA to set NAAQS for pollutants considered harmful to public health and the environment. NAAQS are provided for principal pollutants, called “criteria pollutants” (as listed under Federal Regulation 40 CFR 50 and Section 108 of the CAA) and presented in Table 2.

Table 2. Federal and State Ambient Air Quality Standards.

Pollutant	Averaging Period	Federal NAAQS	State AAAQS
Carbon Monoxide (CO)	1-hour 8-hour	40,000 µg/m ³ 10,000 µg/m ³	40,000 µg/m ³ 10,000 µg/m ³
Lead (Pb)	3-month rolling Calendar quarter (90 day)	0.15 µg/m ³ 1.5 µg/m ³	--- 1.5 µg/m ³
Nitrogen Dioxide (NO ₂)	Annual	100 µg/m ³	100 µg/m ³
Particulate Matter ≤ 10 microns (PM ₁₀)	24-hour Annual	150 µg/m ³ ---	150 µg/m ³ 50 µg/m ³
Particulate Matter ≤ 2.5 microns (PM _{2.5})	24-hour Annual	35 µg/m ³ 15 µg/m ³	--- ---
Ozone (O ₃)	1-hour 8-hour	0.12 ppm 0.075 ppm	235 µg/m ³ ---
Sulfur Dioxide (SO ₂)	3-hour 24-hour Annual	1,300 µg/m ³ 365 µg/m ³ 80 µg/m ³	1,300 µg/m ³ 365 µg/m ³ 80 µg/m ³
Reduced Sulfur Compounds	30-minute	---	50 µg/m ³
Ammonia	8-hour	---	2,100 µg/m ³
AAAQS = Alaska ambient air quality standards NAAQS = National Ambient Air Quality Standards ppm = parts per million µg/m ³ =micrograms per cubic meter			

Clear AFS is located in the Denali Borough of Alaska and within the Northern Alaska Intrastate Air Quality Control Region (AQCR). Good air quality exists in this area, which is in attainment for all NAAQS and AAAQS (USEPA 2010). Fairbanks (specifically, the urban portion of the Fairbanks North Star Borough), located about 80 miles to the northeast of Clear, is currently in non-attainment for PM_{2.5} (and has been since 2006). That area was formerly in non-attainment for carbon monoxide (CO), but was redesignated as attainment for CO on September 27, 2004, and is currently under a maintenance plan to monitor and ensure that compliance with the CO air quality standards can be maintained through the plan's control strategies. The Clear AFS facility is sufficiently distant that it is not affected by requirements of this CO maintenance area.

Clear AFS completed an Air Emissions Inventory for the calendar year 2005 (U.S. Air Force 2006). Since the facility has the potential to emit more than 100 tons per year (tpy) of a single criteria pollutant, it operates under a Federal Title V Operating Permit, which was issued by the ADEC and is valid until September 6, 2011 (ADEC 2006). The permit identifies the facility's air emission sources along with the conditions and requirements of operation. These requirements are based on Federal air quality regulations (40 CFR 50-97) under the CAA and Alaska air quality regulations (18 AAC 50).

3.3 Water Resources

Water resources discussed in this document include groundwater, surface water, and floodplains.

3.3.1 Groundwater

Groundwater at Clear AFS is found in an unconfined aquifer composed of unconsolidated sand and gravel alluvial and glacial outwash deposits. These subsurface unconfined aquifers are abundant and vast in their

expanse, generally at a depth of 50 to 70 feet. Unconfined aquifers do not have any impermeable layers above them and are vulnerable to contamination by leaching from infiltrating precipitation. Deeper bedrock aquifers are located near the boundary of glacial till and bedrock at a depth of 100 to 150 feet (U.S. Air Force 2010). Groundwater discharges about five miles north of Clear AFS into Julius and Clear Creeks (U.S. Air Force 2010). Groundwater in the area is recharged from infiltration of the Nenana River, other surface water, and precipitation. The water table is just below ground surface near the Nenana River, and gradually extends deeper northeastward toward the developed portion of the Station.

Water level data from monitoring wells in the vicinity of the site indicate a water level of approximately 58 feet below ground surface. Groundwater at Clear AFS flows to the north (USGS 1990). The two primary potable water wells for the Station are located approximately 1,000 feet to the west (i.e., side gradient) of the Proposed Action site.

3.3.2 Surface Water

Clear AFS lies within the Tanana River basin and is drained to the north by the Nenana River, a major tributary to the Tanana River that forms the western boundary of the installation. The Nenana River is glacier-fed, silty, and turbid, and experiences major seasonal water-level fluctuations. The river gradient decreases just upstream from Clear AFS, and near the installation the river is characterized by broad, slow-moving flow and braided channels. There are no natural streams, ponds, or lakes on Clear AFS.

Other surface water at the installation consists of the man-made surface drainage system of ditches, swales, and culverts, Lake Sansing, the cooling pond, several unnamed tributaries, and several natural retention and detention ponds (U.S. Air Force 2010). There are no known private water supply intakes in streams within 15 miles downstream from Clear AFS and no municipal intakes on the Nenana River or Tanana Rivers within 150 miles from Clear AFS (U.S. Air Force 1999).

Two man-made water bodies, Lake Sansing and the Power Plant cooling pond, are located on the installation. An open channel carries water from the Power Plant to Lake Sansing. Lake Sansing covers 12 acres and is an old gravel pit excavated in the late 1950s that receives water discharges from the Power Plant, the non-operational radar in the Tech Site, and the Solid State Phased-array Radar Facility.

Under Section 402 of the CWA, discharge of pollutants into waters of the U.S. requires a National Pollutant Discharge Elimination System (NPDES) permit from the USEPA. The USEPA requires NPDES Construction General Permit coverage for storm water discharges from construction projects that would result in the disturbance or redisturbance of one or more acres. Waters of the U.S. include navigable waters and their tributaries; all waters used, or which could be used, for interstate commerce, or waters used by migratory birds or threatened and endangered species. Waters of the U.S. include perennial and intermittent streams and their tributaries; lakes; and various types of wetlands meeting the above definitions or connected to the above listed features (40 CFR 122.2; 33 CFR 328).

Under the NPDES program, the State of Alaska does not have permitting and enforcement authority. NPDES permits are issued by USEPA Region 10. However, pursuant to Section 401 of the CWA, the State of Alaska certifies USEPA general permits (multi sector general permits and construction general permits). If a NPDES permit is required, a storm water pollution prevention plan is required as part of the permit. This plan must contain best management practices (BMPs) to ensure that there is no increase in sediment yield or flow velocity from the construction site during and after construction.

Clear AFS operates under storm water permit number AKR05A407. There are no discharge points (outfalls) from the system due to the relatively flat topographic character of the installation. All storm water is retained in small swales, ditches and shallow ponds until absorbed into the ground.

The nearest surface water to the Proposed Action site is the Power Plant cooling pond located approximately one mile to the northwest.

3.3.3 Floodplains

EO 11988 (*Floodplain Management*) requires Federal agencies to protect values and benefits of floodplains and reduce risks of flood losses by not conducting or allowing activities within floodplains, unless there is no other practicable alternative. The 100-year floodplain of the Nenana River is restricted to the westernmost portion of the installation in undeveloped areas. Approximately 1,100 acres, or 10 percent of the undeveloped acreage of the installation, is within the Nenana River floodplain. The Proposed Action site is located approximately 3 miles east of the 100-year floodplain of the Nenana River.

3.4 Hazardous Materials/Waste

3.4.1 Asbestos

Asbestos is a regulated substance because it is a known carcinogen and a cause of asbestosis (a lung disease). Asbestos is a designated Hazardous Air Pollutant under the National Emission Standards for Hazardous Air Pollutants (NESHAP) of the CAA. USEPA issues regulations to ensure compliance with the CAA, and has delegated compliance with the CAA to the State of Alaska. Alaska has issued regulations contained in the Solid Waste Management Act (18 AAC 60). The regulations are enforced by ADEC. The Occupational Safety and Health Act (OSHA) Asbestos Standard (29 CFR 1926.58) also provides worker protection for employees who work around or remediate asbestos-containing material (ACM). Friable ACM, which can be pre-existing or generated during a demolition or renovation activity, refers to any material containing more than one percent asbestos that can be crumbled, pulverized, or reduced to powder when dry, by using hand pressure or similar mechanical pressure.

When asbestos poses a health danger from the release of airborne fibers (because it is in a friable state), Air Force policy (AFI 32-1052, *Facility Asbestos Management*) is to remove or isolate it. The ADEC requires annual registration of personnel involved in asbestos abatement, and notification before renovating (which involves encapsulation, enclosure, or removal activities) or demolishing a facility containing friable ACM of more than 3-square feet or 3-linear feet (notice must be given to the ADEC if any demolition is to occur, whether or not ACM is present). After demolition or renovation, and before a site can be considered environmentally safe for a real estate transaction (subject to the provisions of the Comprehensive Environmental Response, Compensation and Liability Act [CERCLA], 42 U.S.C. Sec. 9601, et seq.), all friable asbestos must be encapsulated or removed, the site must be approved, and the asbestos waste disposed of in an approved landfill.

The installation's ACM is managed and disposed of as a Category 2 hazardous waste. Asbestos management activities at Clear AFS are handled by the installation's Operations and Maintenance contractor. The contractor's Civil Engineering manager and Environmental Coordinator are designated as the Asbestos Program Officer and Asbestos Operations Officer, respectively. Up to nine linear feet or nine square feet of ACM can be handled by the installation's contractor. Asbestos repair or removal of more than that amount of ACM will be handled by other contractors specializing in asbestos abatement. Asbestos hazard awareness training is provided for installation employees involved with projects containing asbestos on an annual basis.

Prior to disposal of any ACM, it is Clear AFS policy for the generator to provide written documentation listing the amount and site of origin of all ACM. The material is inspected and wetted to ensure it is

properly labeled and stored in leak tight containers. Asbestos is currently disposed of at the Fairbanks landfill that has a permit to accept asbestos.

3.4.2 Lead-Based Paint

Lead-based paint (LBP) can be hazardous when dust or chips are generated from deteriorating paint or during removal (e.g., sanding off old paint). Lead exposure (which can result from ingesting paint dust or chips, or from inhaling lead vapors from torch cutting operations) can affect the human nervous system at low levels. Lead is especially hazardous to children due to their small size and developing nervous system. Air Force policy (U.S. Air Force 1993) states that workers subjected to prolonged or repeated exposure to airborne LBP dust are working in a hazardous environment.

Clear AFS has a comprehensive LBP Management Plan to guide renovation and demolition projects. Painted surfaces that would be affected by the planned demolition that were not included in past surveys would be sampled by bulk or X-ray fluorescence (XRF) sampling. Any LBP found at Clear AFS in areas subject to renovation or demolition is removed by trained and certified abatement personnel, and the resultant waste sampled for hazardous constituents. If the waste is hazardous, it is removed, handled, and disposed of properly.

3.4.3 Installation Restoration Program

The DoD's *Defense Environmental Restoration Program* (implemented for the Air Force by AFI 32-7020, *Environmental Restoration Program*), requires installations to identify, confirm, quantify, and remediate suspected problems associated with past hazardous material disposal sites. The CERCLA provides USEPA with the authority to inventory, investigate, and clean up uncontrolled or abandoned hazardous waste sites. Areas with historical contamination from hazardous materials or wastes through spills or leaks are being investigated and cleaned up through the Installation Restoration Program (IRP). The IRP is the Air Force's CERCLA-based environmental restoration program.

Investigations at Clear AFS have identified 23 IRP sites. Many of the 23 IRP sites were monitored, processed and considered closed, based upon Air Force oversight. However, Federal regulations require more stringent documentation that was not collected or recorded during previous investigations. Therefore, it was determined that all 23 sites would remain open and active until proper documentation and testing had been completed. Beginning in 2005, Clear AFS initiated a Site Summary Report Documentation program undertaken to determine the status of each and identify appropriate action. Currently, the Air Force has obtained ADEC concurrence for closure of 15 of the 23 original IRP sites (U.S. Air Force 2010).

The IRP site nearest the Proposed Action site is Site 11 (FT010, known as the Fire Training Area). This site, the former fire-training pit, is located one block east of the intersection of Curry Avenue and Fifth Street, approximately 400 feet east of the current fire training area (which is also the Proposed Action site) (Figure 6). Use of the Site 11 area began in the early 1960s and was discontinued following completion of the current fire training area in 1986.

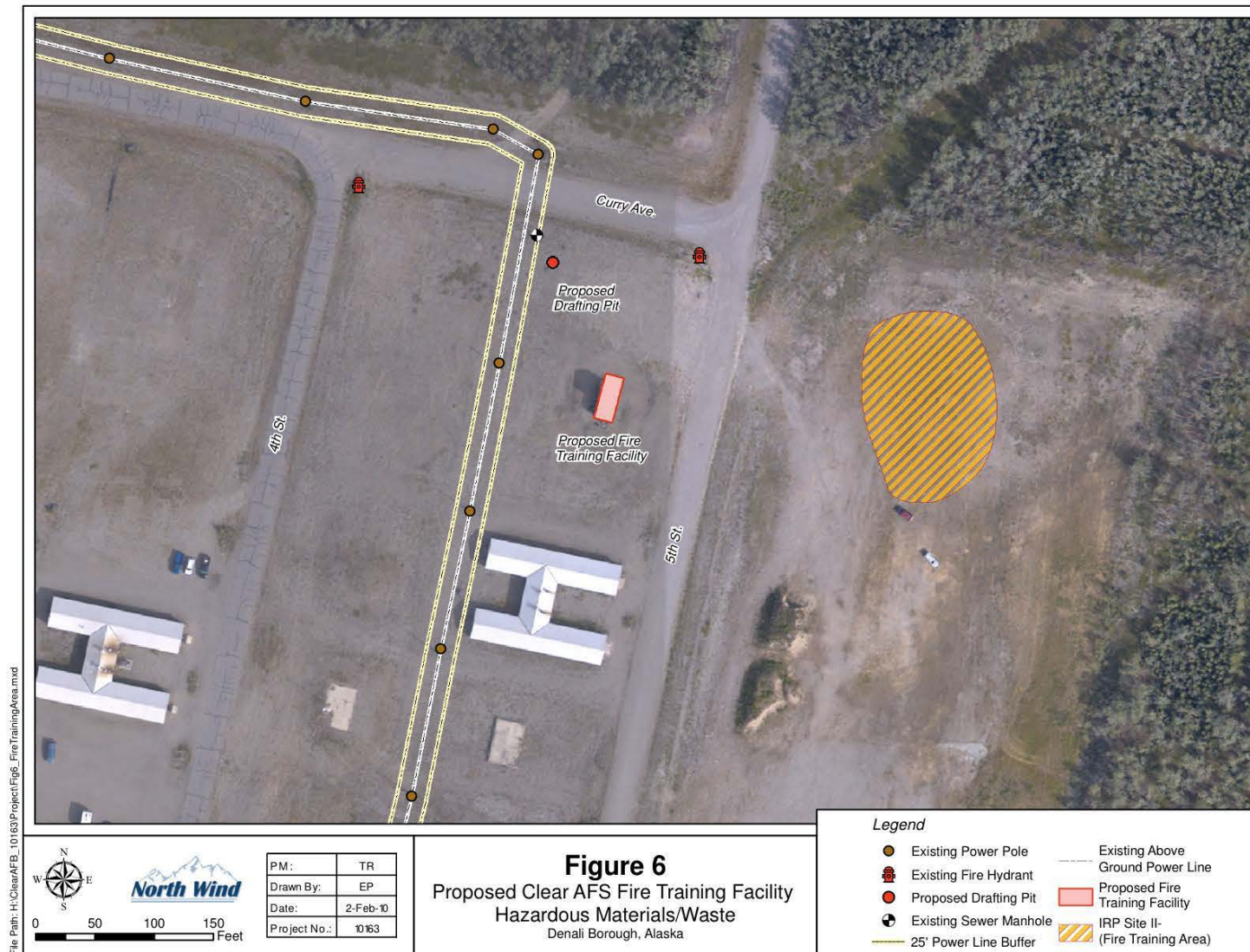


Figure 6. Proposed Clear Air Force Station Fire Training Facility Hazardous Materials/Waste.

Possible sources of the contaminants found include PCBs, solvents, oil, degreasers and fuel. Toluene was discovered in groundwater samples taken from the site. Contaminants discovered in soil samples included lead, 4,4 DDT, dichlorobenzene and tetrahydropyran (THP).

Remedial activities at this site included excavating soils from the fire-training pit that were contaminated by fuels, land farming the soils for one summer, and then encapsulating the soils in a liner in the pit from which they were dug. These requirements were implemented in 1991. The results of follow-up samples were presented in a Remedial Investigation Report in 2007 that indicate no contamination at the site above ADEC cleanup levels and recommended site closure. ADEC concurred with the Air Force recommendation of no further action in their February 2, 2007 letter (U.S. Air Force 2008b).

4. ENVIRONMENTAL CONSEQUENCES

4.1 Introduction

This section identifies the potential direct, indirect, and cumulative effects of implementing the Proposed Action and the No Action alternatives. This section discusses effects on each of the issue areas presented in Section 3.0, and compares and contrasts potential effects of the considered alternatives.

The level of detail provided for each particular resource area is commensurate with the level of potential impact to that resource from each of the two considered alternatives. Where a potential significant impact is identified, mitigation measures are identified that, if implemented, would reduce the level of identified impacts to acceptable, less-than-significant levels. This section also identifies BMPs routinely implemented by the Air Force for construction and demolition projects; these BMPs are routine management measures that ensure environmental impacts are minimized as part of any Air Force proposed action. Where appropriate, pertinent regulatory (permitting) requirements associated with the resource are described.

Impacts are identified as either short-term (i.e., during construction) or long-term (i.e., during the life of the Proposed Action). Further, impacts are identified as either significant, less than significant (i.e., common impacts that would not be of the context or intensity to be considered significant under the NEPA), or no impact. As used in this EA, the terms “effects” and “impacts” are synonymous. Where appropriate and clearly discernable, each impact is identified as either adverse or positive.

4.2 Air Resources

Air emissions generated from the Proposed Action would have insignificant direct and indirect, short- and long-term adverse impacts to the existing air quality environment around the site. Impacts would include short-term and long-term increased air emission levels as a result of: 1) demolition of the existing structure, 2) construction activities, and 3) operation of the FTF (i.e., training activities).

Implementing BMPs to reduce fugitive dust emissions during demolition and construction would minimize the potential impacts on air quality. To minimize the potential for adverse, short-term air quality impacts, the Air Force would implement the following typical dust control BMPs, as applicable:

- Use appropriate dust suppression methods during on-site demolition and construction activities. Available methods include application of water; use of enclosures, covers, silt fences, or wheel washers; and suspension of earth-moving activities during high wind conditions.
- Maintain an appropriate speed to minimize dust generated by vehicles and equipment on unpaved surfaces.
- Cover haul trucks with tarps.
- Visually monitor demolition and construction activities regularly, and implement dust control measures when appropriate.

These dust-reducing BMPs would be briefed to the construction contractor at the construction kick-off meeting, and included as construction requirements by the Air Force. The on-site construction manager would be responsible for addressing air quality issues if they arise, as overseen by the Air Force. Implementation of these BMPs would reduce the potential for short-term adverse air quality impacts to acceptable levels, notably for nearby sensitive receptors on adjacent properties.

Under the Proposed Action, the facility would conduct fire-training exercises involving the open burning of wood pallets. Training would take place six days per year, with a maximum of 14 pallets burned during each of the six days. Assuming 55 pounds for the average weight of a pallet (the middle of the OSHA estimate range of 40 to 70 pounds), approximately 4,620 pounds (2.31 tons) of wood pallets would be burned annually.

To estimate emissions from the open burning of these wood pallets, emission factors were selected from the USEPA AP-42 documentation that most closely match this combustion operation. Chapter 1 External Combustion Sources, Section 1.9 for Residential Fireplaces was selected because this type of combustion is characterized by burning of dry wood with high uncontrolled excess air rates and does not include any type of secondary combustion; similar to what would be expected in an open burning situation. Emissions from burning of dry wood include CO, particulate matter (PM) (mainly PM less than 10 micrometers in diameter), sulfur oxides (SO_x), nitrogen oxides (NO_x), and volatile organic compounds (VOC). Estimates of the projected emissions from the proposed training activities are presented in Table 3. Emissions of carbon dioxide (CO₂) are also a by-product of combustion. Although there are no air quality standards for CO₂, it is considered a greenhouse gas and these emissions are included in the table.

Table 3. Estimated air emissions from proposed fire training activities.

Pollutant	AP-42 Emission Factor (lb / ton of wood)	Quantity of Wood (ton / yr)	Annual Emissions (lb / yr)
Carbon Monoxide (CO)	252.6	2.31	584
Nitrogen Oxides (NO _x)	2.6		6
Particulate Matter ≤ 10 microns (PM ₁₀)	34.6		80
Sulfur Oxides (SO _x)	0.4		1
Volatile Organic Compounds (VOCs)	229		529
Carbon Dioxide (CO ₂)	3,400		7,854
Note: CO, PM ₁₀ , NO _x , SO _x , and VOCs are considered criteria pollutants with regard to emissions. CO ₂ is not a criteria pollutant, but is considered a greenhouse gas. Draft CEQ guidance (18 February 2010) encourages Federal agencies to quantify greenhouse gas emissions if emissions are expected to exceed 25,000 metric tons per year.			

Clear AFS is currently operating under a Title V air operating permit to ensure that it is in compliance with all applicable Federal and State air quality regulations. While the Proposed Action would have an effect on air quality, the effect would be for a very limited number of occurrences per year (i.e., six training events annually) and would constitute an insignificant contribution to overall facility emissions. The Proposed Action would contribute emissions of less than 0.3 ton/year of any regulated pollutant and approximately 4 tons/year of CO₂. When compared to the facility-wide total criteria pollutant emissions in Table 3, this would amount to less than 0.10 percent of regulated criteria pollutant emissions. Although these emissions would be insignificant, the facility is still subject to the Alaska open burning regulations 18 AAC 50.065, which are also included as Section 45 of the Clear AFS current Title V air operating permit. The primary intent of the open burning regulations are (1) to ensure that it does not spread and become a wildfire, and (2) that it does not cause air pollution that creates a health hazard or a public nuisance. The facility is required to follow specific procedures regarding the type and condition of the materials to be burned, the purpose and extent of burn events, burn restrictions during periods of air quality advisories, maintain records, and provide agency and public notification.

The No Action alternative would result in the same insignificant operational impacts to air quality, but no impacts resulting from demolition or construction would occur.

4.3 Water Resources

4.3.1 Groundwater

Implementation of the Proposed Action would result in insignificant impacts to groundwater. Based on data from nearby monitoring wells, the depth to groundwater is approximately 58 feet. Under the proposed training procedures (which with regards to fire training, would be the same as those that have been implemented at the current FTF since 1986), approximately 1,500 to 1,800 gallons of water would be discharged from the fire hoses. A large amount of this water would be dissipated as steam, and the remainder would be discharged to the ground, and subsequently the groundwater, via floor vents. Occasionally (i.e., once every two years), a noncorrosive, biodegradable Class A foam is used in training exercises.

Only clean pallets (i.e., Class A fuels) would be burned during training exercises (with a small amount of cardboard and newspaper used as starter material), any ash discharged with the water would be free of hazardous materials. Wood ash is primarily composed of calcium, potassium, and magnesium. Sulfur, phosphorus, and manganese represent approximately one percent each. Iron, aluminum, copper, zinc, sodium, silicon, and boron are present in relatively smaller amounts (Mahendra et al 1993).

Implementing good housekeeping procedures, such as cleaning the FTF after each training exercise and properly disposing of residual wood and ash, could reduce the insignificant impacts to groundwater even further.

Because ADEC does not recognize a *de minimis* volume for direct discharge to groundwater, a Wastewater Disposal Permit would be required for the proposed training exercises. A copy of the application for this permit is included in Appendix A.

Because the fire training operations would remain the same under the No Action alternative, similar insignificant impacts to groundwater would be expected.

4.3.2 Surface Water

As discussed in Section 3.3.2, the nearest surface water to the Proposed Action site is the Power Plant cooling pond located approximately one mile to the northwest. Because of this distance, the relatively flat terrain in the vicinity of the Proposed Action site, and the relatively fast-draining soils, no impacts to surface water would be expected from implementation of the Proposed Action or No Action alternatives.

Because implementation of the Proposed Action would not include a discharge to surface waters, and would re-disturb less than one acre of land, NPDES Construction General Permit coverage would not be required.

4.3.3 Floodplains

As discussed in Section 3.3.3, the Proposed Action site is located approximately 3 miles east of the 100-year floodplain of the Nenana River. Therefore, no impacts to floodplains would be expected from either Proposed Action or No Action alternatives.

4.4 Hazardous Materials/Waste

4.4.1 Asbestos

There is no ACM in the current FTF, and there would be none in the off-the shelf FTF that would be constructed as part of the Proposed Action. Therefore, no impacts would be anticipated from either the Proposed Action or the No Action alternatives.

4.4.2 Lead-Based Paint

Prior to demolition, the existing FTF would be tested for LBP. If LBP were detected on the painted surfaces, the material would be removed by trained and certified abatement personnel, and the resultant waste removed, handled, and disposed of properly. Under this scenario, the amount of LBP waste generated by Clear AFS would be increased very slightly. The small quantity of waste and the short duration of the removal process would produce an insignificant impact on hazardous materials and waste.

4.4.3 Installation Restoration Program

Because there are no IRP sites on the site of the Proposed Action, and the nearest site has been closed, no impacts would result from either the Proposed Action or the No Action alternatives.

4.5 Cumulative Effects

As defined by CEQ regulations at 40 CFR Part 1508.7, cumulative impacts are those that “result from the incremental impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions, without regard to the agency (Federal or non-Federal) or individual who undertakes such other actions.” Cumulative impact analysis captures the effects that result from the Proposed Action in combination with the effects of other actions in the Proposed Action’s region of influence.

In accordance with NEPA, past, present, and reasonably foreseeable future actions with the potential to cumulatively affect the same resources as the Proposed Action presented in Section 2 are discussed below followed by an analysis of cumulative effects. Future actions proposed in the area may require site-specific NEPA analysis prior to implementation.

4.5.1 Past, Present, and Reasonably Foreseeable Actions

Clear AFS is an active military installation that requires new construction, facility improvements, and infrastructure upgrades. Additionally, many buildings have been demolished or are scheduled for demolition. Five buildings in the Camp Area have recently been demolished.

Short-range projects (i.e., Fiscal Year 2009-2015) planned at Clear AFS that may cumulatively effect the same resources include:

- Construction of Building 800 backup generator system,
- Reconstruction and upgrade of recreational facilities,
- Construction of new Fire Station,
- Construction of a new Civil Engineer complex,
- Demolition of former Technical Site radars and associated buildings (12 structures),

- Renovation of the current Fire Station (Building 251) for Medical Clinic and Ambulance Shelter,
- Renovation of Building 201 for Health and Wellness Center, and
- Demolition of 12 buildings in the Camp Area.

The Clear AFS General Plan (U.S. Air Force 2010) has also identified several long-range projects (i.e., Fiscal Year 2012-2024 and beyond), including:

- Construction of new Security Forces Facility,
- Construction of new Base Exchange,
- Construction of addition to Building 209 for Moral, Welfare, and Recreation store and storage,
- Construction of secondary installation access and gate, and
- Addition and alteration to HAZMART pharmacy.

In addition to the Proposed Action evaluated in this EA, some of the demolition and construction projects listed above could take place during the same timeframe because of the short construction period in interior Alaska. The fact that all of the planned projects would occur in previously developed portions of the station serves to further reduce the potential for significant cumulative impacts to the environment. While there is uncertainty in funding and schedules the potential cumulative impacts of multiple demolition and construction projects occurring during the same timeframe are discussed below for the various resource areas.

None of the past, present, or reasonably foreseeable future actions on Clear AFS would result in impacts to surface water or floodplains, nor would they involve the discharge of untreated wastewater. Therefore, there would be no significant cumulative resources to water quality with the minor addition of discharged wastewater as a result of the Proposed Action.

Past, present, and future actions on Clear AFS have increased air emissions; however, these actions have not and are not expected to violate air quality standards in the region. Additional short-term cumulative air quality impacts could occur if other construction were taking place outside of the installation boundaries. Other ongoing or scheduled activities would also generate criteria air pollutants (primarily PM₁₀), but the amounts would not be significant with the addition of pollutants from the Proposed Action. For these reasons, there would be no significant cumulative impacts to air quality.

Project impacts related to increased generation of solid waste would be considered less than significant. The receiving landfill for solid waste, the Denali Borough Landfill, has sufficient capacity including provision for growth in its service area. Because this landfill would have adequate capacity to serve these projects and other development in its service area, impacts from these actions and related projects are not cumulatively significant.

Hazardous wastes would be managed through the Defense Reutilization and Marketing Office or other transportation/disposal contractors and recorded under the Clear AFS EPA Hazardous Waste Generator Identification Number. No cumulative impacts are anticipated from the short-term increase in hazardous wastes.

Present and future projects planned for Clear AFS would not contribute to significant cumulative changes in the visual or aesthetic character of the vicinity or contribute to the loss of views of open land.

4.6 Relationship Between Short-Term Uses of the Environment and Long-Term Productivity

Short-term uses of the environment would include direct minor demolition and construction related disturbances. The proposed project would not result in an intensification of land use. Implementation of the Proposed Action would not result in any loss of open space. It would be anticipated that the proposed new FTF would be utilized to train fire fighters for many years and therefore, long-term productivity.

4.7 Irreversible and Irretrievable Commitment of Resources

The irreversible and irretrievable commitment of resources would involve the use of materials, energy, water, and economic resources. Demolition of the existing FTF and construction of the new FTF would require relatively small amounts of ordinary materials such as fuel and construction materials. These materials would, except for recyclable items, be irretrievably committed. Long-term commitments of resources would occur from expenditures to complete the construction and renovation projects. The amounts of resource consumption would be very small and comparable to other defense-related projects. Long-term commitment of resources would occur from training activities conducted at the FTF. The amounts of resource consumption are not expected to increase significantly from current usage.

5. REFERENCES

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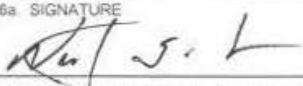
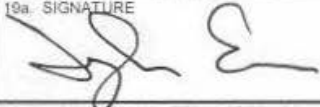
6. LIST OF PREPARERS

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APPENDIX A

Agency Correspondence

APPENDIX B
Air Force Form 813

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS		Report Control Symbol RCS:
INSTRUCTIONS: Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).		
SECTION I - PROPONENT INFORMATION		
1. TO (Environmental Planning Function) Aleut Global Solutions/CENV	2. FROM (Proponent organization and functional address symbol) 13 SWS/MAF	2a. TELEPHONE NO. 585-6273
3. TITLE OF PROPOSED ACTION Removal of current Training facility and Install new Facility to include Concrete pad. Install new 500 Gal. Drafting Pit.		
4. PURPOSE AND NEED FOR ACTION (Identify decision to be made and need date) The new training facility and drafting pit would allow us to complete training requirements IAW AFI 32-2001 and NFPA 1001, 1002 series. Date to be completed by is 31 Aug 2008.		
5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) (Provide sufficient details for evaluation of the total action.) Remove existing facility and concrete pad and install new 38' x 20' concrete pad where the current facility sits and to install an in-ground 500 gallon drafting pit with lid and piping to recirculate the water back into the drafting pit.		
6. PROPONENT APPROVAL (Name and Grade) West Brinkley, YN-02	6a. SIGNATURE 	6b. DATE 20080207
SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. (Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U = unknown effect)		
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE (Noise, accident potential, encroachment, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
8. AIR QUALITY (Emissions, attainment status, state implementation plan, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. WATER RESOURCES (Quality, quantity, source, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. SAFETY AND OCCUPATIONAL HEALTH (Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard, etc.) Assuming trainees will not be exposed to chemicals.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. HAZARDOUS MATERIALS/WASTE (Use/storage/generation, solid waste, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12. BIOLOGICAL RESOURCES (Wetlands/floodplains, threatened or endangered species, etc.) No wetlands present in described location.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13. CULTURAL RESOURCES (Native American burial sites, archaeological, historical, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14. GEOLOGY AND SOILS (Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15. SOCIOECONOMIC (Employment/population projections, school and local fiscal impacts, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16. OTHER (Potential impacts not addressed above) Is a training facility not part of the Fire Department Complex Project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION		
17. <input type="checkbox"/> PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # _____; OR <input checked="" type="checkbox"/> PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.		
18. REMARKS 7. Specifics of training facility are not known, such as the size of the complex and training activities and including the frequency. 11. Materials used and wastes produced during training activities are not known. 14. There is an IEP site adjacent to the current building. Post closure requirements of the IEP should be evaluated. 16. Requirement is not explained in Section I.4, and alternatives are not discussed in I.5.		
19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION (Name and Grade) Tyler M. Evans, Lt. Col., 13SWS/CC	19a. SIGNATURE 	19b. DATE 25 FEB 08

AF IMT 813, 19990901, V1

THIS FORM CONSOLIDATES AF FORMS 813 AND 814.
PREVIOUS EDITIONS OF BOTH FORMS ARE OBSOLETE.

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PAGE(S)

APPENDIX C

Environmental Elements Considered but Eliminated from Detailed Analysis

Environmental Elements Considered but Eliminated from Detailed Analysis

Environmental Justice: Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, issued on February 11, 1994, mandates Federal agencies to assess whether their actions have disproportionate environmental and human health impacts on minority and low-income populations. The intent of this order is to ensure that all communities, including minority, low-income, or federally recognized tribes, live in a safe and healthful environment. Lands within Clear AFS do not contain any tribal lands or low-income properties. The Nenana Native council has indicated that it has no concerns regarding the Proposed Action. Implementation of the Proposed Action would not cause any disproportionately high and adverse human health or environmental effects on minority populations, low-income populations, or Indian Tribes.

Cultural Resources: No cultural resources are known to occur in the areas with the potential to be affected by the proposed action, and all ground in the project area has been previously disturbed. The project area is identified in the 2008 Clear AFS Integrated Cultural Resources Management Plan (ICRMP) as an area with “*low potential for archaeological sites.*” The Nenana Native council has indicated that it has no concerns regarding the Proposed Action. Therefore, no impacts to archaeological, cultural, or historical resources are anticipated from implementation of the Proposed Action.

Noise: Noise would be generated by demolition and construction activities, although typical equipment to be used would not produce greater noise volumes than other activities typical for the area. Noise would be generated intermittently from the work site during normal working hours until completion and would be greater than normal at times. Construction work would occur during daylight hours when loud noises are more tolerable. After completion, noise levels would consist of background noise from existing use and normal vehicle traffic. The nearest sensitive noise receptors are approximately four miles to the north (in the City of Anderson). Therefore, the construction activities associated with the Proposed Action would result in a negligible, short-term, localized increase in noise levels on Clear AFS. This would not be noticeable in the context of other activities that are occurring on the Station.

Safety and Occupational Health: Demolition and construction to implement the Proposed Action would present common demolition/construction hazards and impacts; therefore, the types of safety risks associated with implementation of the Proposed Action are those that are commonly related to construction projects. All demolition and construction work on the site would occur within the guidelines of relevant procedures and controls to ensure that appropriate industrial safety precautions are followed to prevent accidents and injuries. Impacts would be insignificant, short term, and temporary, occurring only for the duration of the demolition and construction period. Once construction is complete no effects to public or personnel safety are expected.

Safety standards and procedures for fire fighter training activities are found in NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*. Additional guidance concerning safety issues can be found in the DoD Directive 1000.3, *Safety and Occupational Health Policy for the DoD* (March 29, 1979). The fire fighter training mission would be the same as it has been historically, although new components would be implemented (e.g., rappelling, second level to allow for above-grade fire fighting), as required by NFPA 1001, *Standard for Fire Fighter Professional Qualifications*, and NFPA 1006, *Standard for Technical Rescuer Professional Qualifications* (per AFI 32-2001, *Fire Emergency Services Program*, September 9, 2008). Safety standards for these additional proposed training components are included in NFPA 1500. Therefore, no impacts to safety and occupational health are expected from implementation of the Proposed Action.

Geology and Soils: The Fairbanks Soil and Water Conservation District has indicated that they have no environmental concerns regarding the Proposed Action. Activities related to construction of the FTF and excavation for the installation of the drafting pit would result in less than one acre of ground disturbance. Applicable construction BMPs would be implemented to reduce the potential for impacts; all disturbed soils would be returned to their original (or improved) condition as part of the process. Therefore, impacts to soils are expected to be short-term, localized, and negligible.

Infrastructure: The Proposed Action would result in negligible change to infrastructure of the Station. The proposed 500-gallon drafting pit would be connected to the existing water system, and would be filled infrequently as part of training activities. Electrical power would be supplied to the proposed building from an existing nearby power line, and would be used only to power temperature sensors within the facility. This would be a negligible, insignificant impact to the Station's infrastructure.

Visual Resources: In general, the degree to which an action would modify the existing surroundings is used to assess the level of impact to visual resources. The Proposed Action would not alter or change the visual characteristics associated with activities occurring on the installation. Construction equipment would be visible in this area briefly during project implementation but it would not obstruct views of the surrounding area nor would it significantly change the overall landscape. After construction, the FTF would be situated in the same location as the existing FTF. There would be no long-term impacts to visual resources.

Socioeconomics: The proposed demolition and construction activity would generate a small number of short-term jobs for the duration of the project. During the construction phase of the project a minor, temporary increase in economic activity would result from purchases of supplies and services from local contractors. The potential minor and short-term nature of the demolition and construction activity would not be expected to increase the workforce and no new positions would be created. No significant short or long-term impacts to socioeconomic resources are expected from implementation of the Proposed Action.

Biological Resources – The USFWS has identified that no threatened or endangered species have the potential to occur within the Proposed Action site. Their findings are corroborated by a threatened, endangered and sensitive species survey conducted at Clear AFS in 2008 (Carlson and Gotthardt 2009). The USFWS also noted that the Proposed Action site would be located on a disturbed site with existing vehicle and pedestrian traffic, limiting the use of the site by wildlife. No wetlands are located in the vicinity of the proposed project site. Proposed training activities would be very similar to those currently conducted on the site. No significant short or long-term impacts to biological resources are expected from implementation of the Proposed Action.